

Amendments to the Claims

Please cancel Claims 4, 7-13, and 19-24 without prejudice or disclaimer.

Please amend Claims 1-3, 6, 14-16, 18, 25, and 26 to read as follows.

1. (Currently Amended) ~~★ An inkjet~~ printhead having a plurality of printing elements, comprising:

a plurality of switching elements comprising NMOS transistors, being arranged in correspondence with the respective printing elements, ~~and~~ configured to control energization ~~to of~~ the respective printing elements;

a first power supply line of a higher voltage and a second power supply line of a lower voltage, configured to supply electric power to the printing elements;

a plurality of constant current sources comprising NMOS transistors, configured to supply a constant current to the printing elements;

a reference voltage circuit configured to generate a reference voltage; ~~and~~

a current generation circuit configured to generate a reference current on the basis of the reference voltage generated by said reference voltage circuit[[:]], ~~and~~

a wherein the plurality of constant current sources ~~configured to~~ supply, in accordance with the reference current generated by said current generation circuit, constant currents via said switching elements arranged in correspondence with the respective printing elements, and

the printing elements, said switching elements and said constant current sources are

connected in series between said first power supply line and said second power supply line, in an order of the printing elements, said switching elements and said constant current sources from said first power supply line to said second power supply line.

2. (Currently Amended) The printhead according to claim 1, wherein each of the respective plurality of constant current sources ~~form~~ forms a current mirror ~~circuit~~ circuit with a current output circuit ~~portions~~ portion of said current generation circuit.

3. (Currently Amended) The printhead according to claim 1, wherein the plurality of printing elements and said plurality of switching elements are divided into a plurality of groups, and ~~the respective~~ each of said constant current sources ~~are~~ is connected to one of the respective plurality of groups.

4. (Canceled)

5. (Original) The printhead according to claim 1, wherein said reference voltage circuit generates as the reference voltage a voltage obtained by amplifying a band gap voltage.

6. (Currently Amended) The printhead according to claim 1, wherein ~~said constant current source is formed using~~ each of the NMOS ~~MOS~~ transistors of said constant current

~~sources[.]] each of which operates in a saturation region wherein a drain current hardly changes with respect to a drain voltage.~~

7.-13. (Canceled)

14. (Currently Amended) A printhead substrate having a plurality of printing elements, comprising:

a plurality of switching elements ~~comprising NMOS transistors, being configured to be~~ arranged in correspondence with the respective printing elements, ~~configured to and~~ control energization ~~to of~~ the respective printing elements;

~~a first power supply line of a higher voltage and a second power supply line of a lower voltage, configured to supply electric power to the printing elements;~~

~~a plurality of constant current sources comprising NMOS transistors, configured to supply a constant current to the printing elements;~~

a reference voltage circuit configured to generate a reference voltage; ~~and~~

a current generation circuit configured to generate a reference current on the basis of the reference voltage generated by said reference voltage circuit[.]; ~~and~~

~~a wherein the plurality of constant current sources configured to supply, in accordance with the reference current generated by said current generation circuit, constant currents via said switching elements arranged in correspondence with the respective printing elements, and~~

the printing elements, said switching elements and said constant current sources are connected in series between said first power supply line and said second power supply line, in an order of the printing elements, said switching elements and said constant current sources from said first power supply line to said second power supply line.

15. (Currently Amended) The substrate according to claim 14, wherein ~~the respective~~ each of said plurality of constant current sources ~~form forms a current mirror circuits circuit~~ with a current output circuit ~~portions~~ portion of said current generation circuit.

16. (Currently Amended) The substrate according to claim 14, wherein the plurality of printing elements and said plurality of switching elements are divided into a plurality of groups, and ~~the respective~~ each of said constant current sources ~~are~~ is connected to each of the ~~respective~~ plurality of groups.

17. (Original) The substrate according to claim 14, wherein said reference voltage circuit generates as the reference voltage a voltage obtained by amplifying a band gap voltage.

18. (Currently Amended) The substrate according to claim 14, wherein ~~said constant~~ current source is formed using each of the NMOS MOS transistors, ~~each of which~~ of said constant current sources operates in a saturation region wherein a drain current hardly changes with respect

to a drain voltage.

19.-24. (Canceled)

25. (Currently Amended) ★ An inkjet head cartridge comprising:

α an inkjet printhead defined in claim 1; and

an ink tank configured to accommodate ink to be supplied to said printhead.

26. (Currently Amended) ★ An inkjet printing apparatus comprising:

α an inkjet printhead defined in claim 1; and

driving means for driving said printhead in accordance with a printing signal.